1. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals that contain m and b.
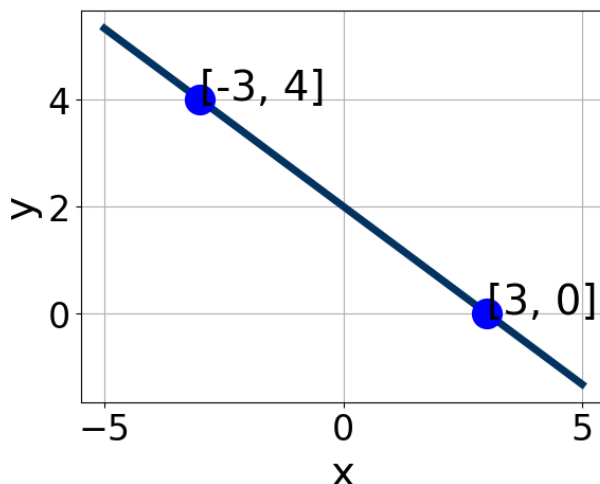
$$(3, 8) \text{ and } (4, 2)$$

A. $m \in [-11, -5]$ $b \in [26, 27]$

B. $m \in [3, 9]$ $b \in [-24, -21]$

C. $m \in [-11, -5]$ $b \in [-10, -1]$

D. $m \in [-11, -5]$ $b \in [-26, -23]$

E. $m \in [-11, -5]$ $b \in [4, 8]$

2. Solve the equation below. Then, choose the interval that contains the solution.

$$-14(2x - 19) = -10(17x - 16)$$

A. $x \in [-3.01, -2.31]$

B. $x \in [2.85, 3.54]$

C. $x \in [2.03, 2.61]$

D. $x \in [-0.76, -0.56]$

E. There are no real solutions.

3. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.

A. $A \in [1.75, 2.91]$, $B \in [-3.69, -2.65]$, and $C \in [-6.6, -2.8]$

B. $A \in [0.41, 1.52]$, $B \in [0.76, 1.89]$, and $C \in [1, 3.1]$

C. $A \in [0.41, 1.52]$, $B \in [-1.97, -0.93]$, and $C \in [-3.9, 0.2]$

D. $A \in [1.75, 2.91]$, $B \in [2.11, 4.64]$, and $C \in [5.6, 7.5]$

E. $A \in [-2.7, -0.81]$, $B \in [-3.69, -2.65]$, and $C \in [-6.6, -2.8]$

4. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

   Parallel to $8x - 5y = 12$ and passing through the point $(-6, -5)$.

   A. $m \in [1.37, 1.62]$ $b \in [-7.6, -3.6]$

   B. $m \in [0.41, 0.7]$ $b \in [2.6, 5.6]$

   C. $m \in [-1.74, -0.49]$ $b \in [-18.6, -11.6]$

   D. $m \in [1.37, 1.62]$ $b \in [0, 2]$

   E. $m \in [1.37, 1.62]$ $b \in [2.6, 5.6]$

5. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{-7x + 4}{3} - \frac{-6x - 5}{2} = \frac{5x + 7}{5}$$

A. $x \in [4.5, 6.5]$

B. $x \in [-9.6, -6.7]$

C. $x \in [-1.4, 1.5]$

D. $x \in [6.6, 7.6]$

E. There are no real solutions.

6. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Parallel to $4x - 7y = 14$ and passing through the point $(-8, -6)$.

A. $m \in [-0.02, 0.95]$ $b \in [1.67, 2.54]$

B. $m \in [1.64, 2.32]$ $b \in [-1.62, -1.29]$

C. $m \in [-0.02, 0.95]$ $b \in [-0.04, 1.6]$

D. $m \in [-0.02, 0.95]$ $b \in [-1.62, -1.29]$

E. $m \in [-1.06, 0.39]$ $b \in [-11.81, -8.98]$

7. Solve the equation below. Then, choose the interval that contains the solution.
$$-17(-16x - 3) = -14(-7x - 4)$$

A. $x \in [-0.22, 0.15]$

B. $x \in [-0.33, -0.2]$

C. $x \in [-0.79, -0.61]$

D. $x \in [0.34, 0.76]$

E. There are no real solutions.

8. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals

that contain m and b.

$$(-9, 6) \text{ and } (-5, -4)$$

A. $m \in [1.5, 5.5]$ $b \in [8.2, 9.8]$

B. $m \in [-6.5, -1.5]$ $b \in [0.9, 1.2]$

C. $m \in [-6.5, -1.5]$ $b \in [-18.8, -14.7]$

D. $m \in [-6.5, -1.5]$ $b \in [16, 16.9]$

E. $m \in [-6.5, -1.5]$ $b \in [13.6, 15.9]$

9. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.
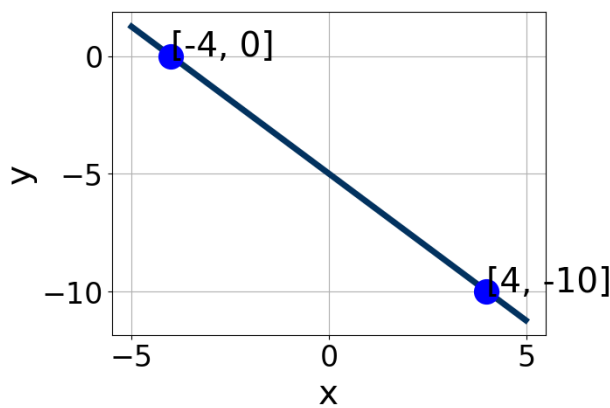
A. $A \in [-1.3, 3.1]$, $B \in [-0.06, 1.87]$, and $C \in [-6, 1]$

B. $A \in [-1.3, 3.1]$, $B \in [-1.57, -0.25]$, and $C \in [4, 6]$

C. $A \in [3.1, 8.7]$, $B \in [3.44, 4.03]$, and $C \in [-21, -19]$

D. $A \in [-5.6, -4.8]$, $B \in [-4.51, -2.73]$, and $C \in [12, 24]$

E. $A \in [3.1, 8.7]$, $B \in [-4.51, -2.73]$, and $C \in [12, 24]$

10. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{4x + 6}{3} - \frac{4x + 6}{7} = \frac{3x + 4}{8}$$

   A. $x \in [-2.8, -1.6]$

   B. $x \in [9.8, 10.6]$

   C. $x \in [-6.2, -5.6]$

   D. $x \in [-0.1, 2]$

   E. There are no real solutions.

---

11. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals that contain m and b.

$$(6, -7) \text{ and } (11, 6)$$

   A. $m \in [-8.6, -1.6] \quad b \in [33.6, 36.6]$

   B. $m \in [-0.4, 6.6] \quad b \in [18.6, 28.6]$

   C. $m \in [-0.4, 6.6] \quad b \in [-22.6, -20.6]$

   D. $m \in [-0.4, 6.6] \quad b \in [-11, -3]$

   E. $m \in [-0.4, 6.6] \quad b \in [-15, -11]$

---

12. Solve the equation below. Then, choose the interval that contains the solution.
$$-12(-14x + 17) = -4(-19x + 2)$$

   A. $x \in [1.94, 2.27]$

   B. $x \in [2.17, 2.43]$

   C. $x \in [-2.67, -2.23]$

   D. $x \in [0.78, 1.12]$

   E. There are no real solutions.

---

13. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.
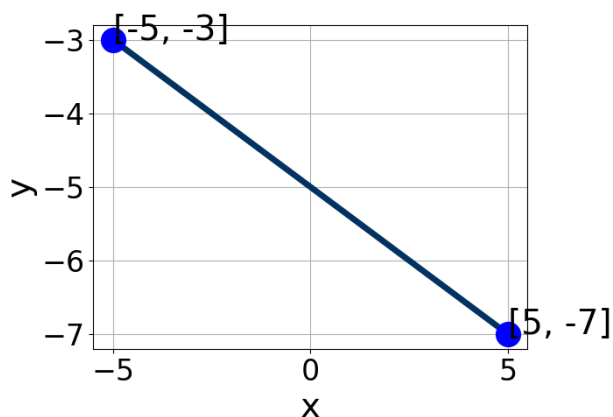
A. $A \in [0.1, 1.5]$, $B \in [0.6, 1.8]$, and $C \in [-10, -1]$

B. $A \in [0.1, 1.5]$, $B \in [-1.4, 0.1]$, and $C \in [3, 7]$

C. $A \in [1.1, 4.4]$, $B \in [3.4, 7.4]$, and $C \in [-26, -24]$

D. $A \in [-2.2, -0.9]$, $B \in [-6.1, -4.8]$, and $C \in [20, 32]$

E. $A \in [1.1, 4.4]$, $B \in [-6.1, -4.8]$, and $C \in [20, 32]$

---

14. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

    Parallel to $6x - 7y = 13$ and passing through the point $(2, -5)$.

    A. $m \in [1.13, 2.36]$ $b \in [-6.84, -4.95]$

    B. $m \in [-0.01, 1.02]$ $b \in [-6.84, -4.95]$

    C. $m \in [-0.01, 1.02]$ $b \in [6.69, 7.89]$

    D. $m \in [-0.01, 1.02]$ $b \in [-7.39, -6.76]$

    E. $m \in [-1.34, -0.72]$ $b \in [-3.91, -2.08]$

---

15. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{4x - 5}{4} - \frac{5x + 5}{3} = \frac{-8x - 9}{8}$$

    A. $x \in [-0.7, 1.1]$

B. $x \in [-4.8, -3]$

C. $x \in [5.2, 7.6]$

D. $x \in [2.8, 4.1]$

E. There are no real solutions.

---

16. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

    Parallel to $6x + 5y = 7$ and passing through the point $(-3, -10)$.

    A. $m \in [-1.12, -0.75]$ $b \in [-14, -12.98]$

    B. $m \in [-2.5, -0.92]$ $b \in [13.21, 13.82]$

    C. $m \in [0.75, 1.71]$ $b \in [-6.99, -6.29]$

    D. $m \in [-2.5, -0.92]$ $b \in [-14, -12.98]$

    E. $m \in [-2.5, -0.92]$ $b \in [-7.27, -6.62]$

---

17. Solve the equation below. Then, choose the interval that contains the solution.
$$-18(19x - 12) = -13(-15x - 14)$$

    A. $x \in [-0.8, -0.54]$

    B. $x \in [0.05, 0.16]$

    C. $x \in [2.66, 2.9]$

    D. $x \in [0.58, 1.12]$

    E. There are no real solutions.

---

18. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b.

    $(9, 5)$ and $(10, -5)$

A. $m \in [-12, -6]$ $b \in [-4, 0]$

B. $m \in [-12, -6]$ $b \in [-95, -91]$

C. $m \in [-12, -6]$ $b \in [93, 103]$

D. $m \in [-12, -6]$ $b \in [-16, -13]$

E. $m \in [8, 15]$ $b \in [-105, -102]$

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19. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.
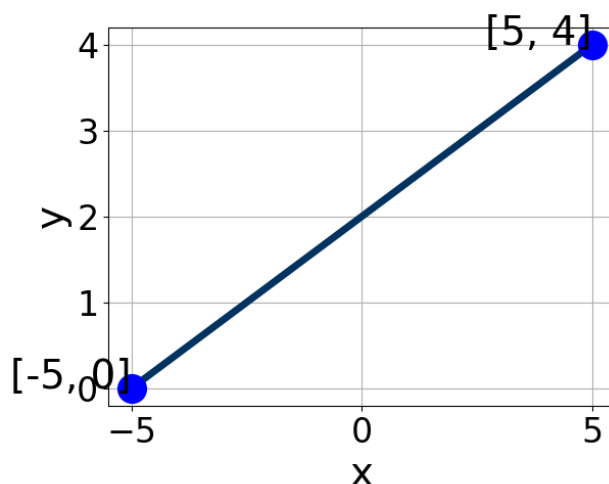
A. $A \in [-6.4, -1.5]$, $B \in [1.2, 6.5]$, and $C \in [4, 12]$

B. $A \in [0.8, 5.6]$, $B \in [-5.3, -3.1]$, and $C \in [-15, -5]$

C. $A \in [-1.3, -0.3]$, $B \in [-1.7, -0.3]$, and $C \in [-8, 1]$

D. $A \in [0.8, 5.6]$, $B \in [1.2, 6.5]$, and $C \in [4, 12]$

E. $A \in [-1.3, -0.3]$, $B \in [0.7, 3.9]$, and $C \in [1, 5]$

---

20. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{8x - 7}{5} - \frac{5x - 3}{4} = \frac{7x + 6}{7}$$

A. $x \in [-4.32, -1.32]$

B. $x \in [-5.63, -3.63]$

C. $x \in [-0.38, 2.62]$

D. $x \in [-16.38, -14.38]$

E. There are no real solutions.

---

21. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals that contain m and b.
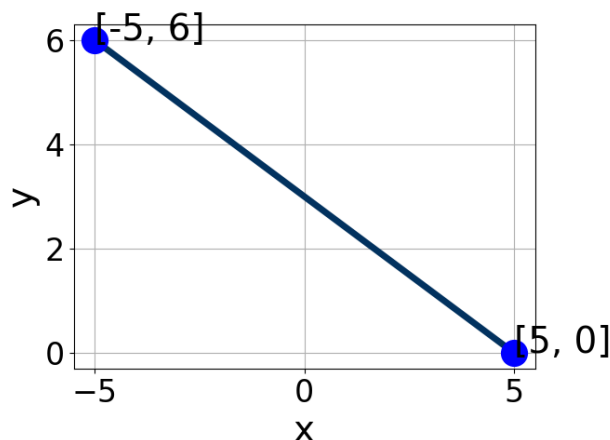
$$(-5, -7) \text{ and } (-7, 9)$$

A. $m \in [-12, -6]$　$b \in [44, 52]$

B. $m \in [-12, -6]$　$b \in [16, 22]$

C. $m \in [-12, -6]$　$b \in [-52, -46]$

D. $m \in [5, 12]$　$b \in [62, 72]$

E. $m \in [-12, -6]$　$b \in [-6, 6]$

---

22. Solve the equation below. Then, choose the interval that contains the solution.
$$-5(-19x + 6) = -11(14x + 18)$$

A. $x \in [-3.99, -3.73]$

B. $x \in [0.91, 1.45]$

C. $x \in [-0.83, -0.37]$

D. $x \in [-1.35, -0.74]$

E. There are no real solutions.

---

23. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.

A. $A \in [-1.1, 1]$, $B \in [-2.6, 0]$, and $C \in [-6, -2]$

B. $A \in [2.9, 4.4]$, $B \in [-5.1, -4]$, and $C \in [-20, -4]$

C. $A \in [-7.6, 0.5]$, $B \in [-5.1, -4]$, and $C \in [-20, -4]$

D. $A \in [2.9, 4.4]$, $B \in [3.1, 6.3]$, and $C \in [12, 19]$

E. $A \in [-1.1, 1]$, $B \in [0.5, 2.7]$, and $C \in [3, 5]$

---

24. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

Perpendicular to $5x - 3y = 15$ and passing through the point $(5, 4)$.

A. $m \in [-0.67, -0.16]$ $b \in [-7.6, -3.6]$

B. $m \in [-0.67, -0.16]$ $b \in [6.5, 9.2]$

C. $m \in [-0.67, -0.16]$ $b \in [-2, -0.9]$

D. $m \in [0.54, 1.76]$ $b \in [0.2, 1.3]$

E. $m \in [-1.98, -1.35]$ $b \in [6.5, 9.2]$

---

25. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{8x + 3}{7} - \frac{-3x + 8}{4} = \frac{7x + 4}{3}$$

A. $x \in [-21.5, -19.9]$

B. $x \in [1.5, 4.4]$

C. $x \in [-0.4, 1.7]$

D. $x \in [-7.1, -4.1]$

E. There are no real solutions.

---

26. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

    Parallel to $8x + 9y = 9$ and passing through the point $(6, 4)$.

    A. $m \in [-1, 0.3]$ $b \in [-2.73, -1.89]$

    B. $m \in [-1.3, -0.9]$ $b \in [9.04, 9.97]$

    C. $m \in [-0.3, 2.8]$ $b \in [-1.84, -0.93]$

    D. $m \in [-1, 0.3]$ $b \in [-10.03, -8.99]$

    E. $m \in [-1, 0.3]$ $b \in [9.04, 9.97]$

---

27. Solve the equation below. Then, choose the interval that contains the solution.
$$-13(-16x - 2) = -9(10x + 5)$$

    A. $x \in [0.1, 0.21]$

    B. $x \in [0.03, 0.14]$

    C. $x \in [-0.26, -0.15]$

    D. $x \in [-0.18, 0]$

    E. There are no real solutions.

---

28. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b.

    $(7, -2)$ and $(-9, 3)$

A. $m \in [-0.44, 0.04]$ $b \in [-0.1, 1.7]$

B. $m \in [0.18, 0.4]$ $b \in [4.48, 6.93]$

C. $m \in [-0.44, 0.04]$ $b \in [-1.68, -0.09]$

D. $m \in [-0.44, 0.04]$ $b \in [11.59, 12.01]$

E. $m \in [-0.44, 0.04]$ $b \in [-9.78, -8.62]$

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29. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.
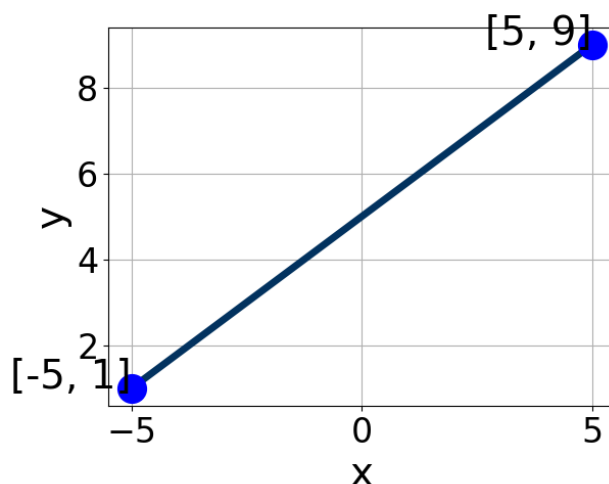
A. $A \in [-5.1, -3.9]$, $B \in [3.46, 5.47]$, and $C \in [24, 29]$

B. $A \in [-3.8, 1.1]$, $B \in [-2.36, -0.99]$, and $C \in [-6, -4]$

C. $A \in [-3.8, 1.1]$, $B \in [0, 1.29]$, and $C \in [3, 7]$

D. $A \in [2.9, 7.6]$, $B \in [-5.22, -4.47]$, and $C \in [-26, -17]$

E. $A \in [2.9, 7.6]$, $B \in [3.46, 5.47]$, and $C \in [24, 29]$

---

30. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{-3x + 5}{2} - \frac{-6x + 9}{4} = \frac{-4x + 6}{5}$$

A. $x \in [0.2, 1.4]$

B. $x \in [10.7, 13.8]$

C. $x \in [-0.7, 0.2]$

D. $x \in [-5.1, -3.7]$

E. There are no real solutions.